

A NEW SPECIES OF *MOONIA* (HOMOPTERA: ULOPIDAE)^{1,2}

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(With ten text-figures)

Distant (1908 and 1916) described seven species of *Moonia*, *M. sancita* Distant (type-species) from Mussoorie Hills, U.P., and *albimaculata*, *capitata*, *brunnea*, *variabilis*, *diversa* and *albivitta* from Chikkaballapura, Nilgiri hills and Kodaikanal in South India. Kameswara Rao and Ramakrishnan (1978) added two more species, *M. immaculata* and *M. ixora* and one subspecies *M. sancita pomegranata* from Delhi. One more new species of *Moonia* is described in this paper from Delhi. The type specimens have been deposited in the National Pusa collections, New Delhi.

***Moonia carinata* sp. nov.** (Figs. 1-10)

This species comes near to *Moonia variabilis* Distant and in the key given by Kameswara Rao and Ramakrishnan (1978) for the species of *Moonia* but can be differentiated from *variabilis* by the presence of a distinct carina on the postclypeus and well expanded gena. Internally the pygofer process of *variabilis* is more serrated at the apex than that of *carinata*.

The head, pronotum and surface of the fore wings of these hoppers show numerous pits.

Form: Face (Fig. 1) shows the postclypeus with a distinct longitudinal ridge; anteclypeus oval and distinctly separate from the postclypeus by a transverse depression; lora oval,

distinctly marked off from adjoining sclerites; gena broad. Pronotum (Fig. 2) broader than long, convex and carinate medially.

Fore wing (Fig. 8): Fore wing broad, narrowed at apical portion; coriaceous thickly pitted, pits absent in the apical portion; veins prominently raised.

Hind wing (Fig. 9): Wings with well developed veins and three apical cells.

External male genitalia: Ninth sternum more or less triangular. Subgenital plate (Fig. 4) slender and long. Pygofer (Fig. 5) long and broad, posterior portion membranous bearing a spine like projection, mesially each lobe of the pygofer bears a flattened process (Fig. 7) which is irregularly toothed at the apex.

Internal male genitalia: Paramere (Fig. 6) elongated and arcuate with its cephalic portion short, narrow and rounded at apex, caudal portion long, broad and ending into a clubbed rounded apex. Aedeagus (Fig. 10) articulated to the connective (Fig. 3) by a short preatrium, atrial apodeme well developed, broader at the base than at apex, pointed, aedeagal shaft equal in length to atrial apodeme; gonopore subapical, almost at the mid-length of the shaft.

Coloration: Ochraceous specimens. The depression behind the anterior margin of frons,

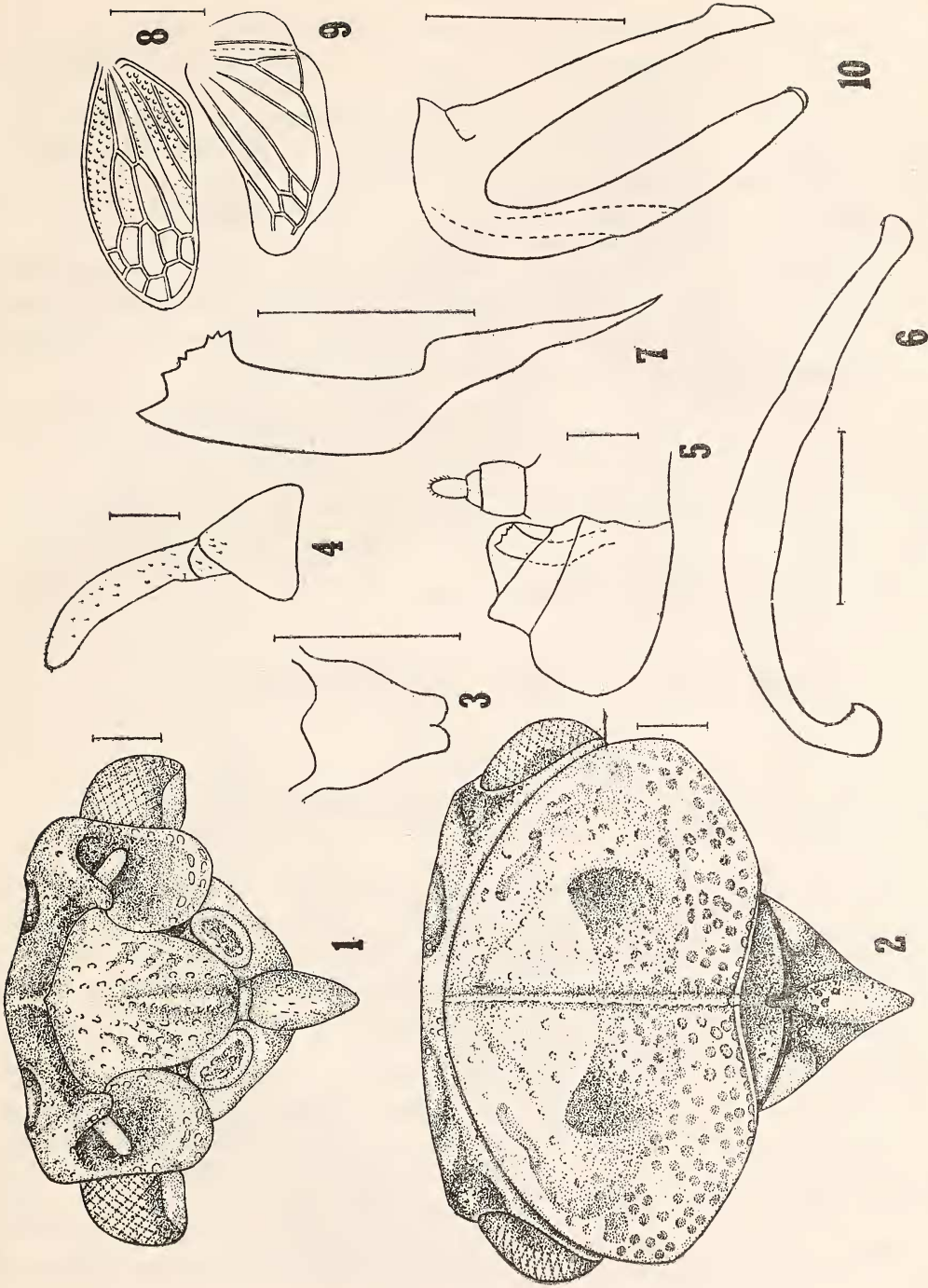
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NEW DESCRIPTIONS



Figs. 1-10. *Moonia carinata* sp. nov.: 1. face; 2. vertex, pronotum and scutellum; 3. connective; 4. subgenital plate; 5. pygofer with anal ring; 6. paramere; 7. pygofer process; 8. forewing; 9. hind wing; 10. aedeagus.

antennal pits, central portion of pronotum on either side of median dorsal carina, central portion of scutellum, piceous.

Measurements of male in millimetres: Length 4.32; Fore wing 3.17; Scutellum 0.72. All the drawings were drawn with a camera lucida except wings which were drawn with a microprojector. All the magnification lines were drawn to 0.2 mm except in case of wings which were drawn to 1.0 mm.

Holotype ♂, INDIA: Pusa-Bihar, "Duranta", 19-vii-1913, H. N. Batra (Wings and genitalia

on slides and the rest on tag).

Paratype ♀, INDIA, Uttar Pradesh, Delhi, ex light, 27-vii-1974, P.K.R.

The type specimens have been deposited in the National Pusa Collections, New Delhi.

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A NEW SPECIES OF FERN FROM SOUTH INDIA¹

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(With five text-figures)

Illustrated description of a new species of fern-*Grammitis pilifera* (Grammitidaceae) from Ponmudi Hills, Trivandrum District, Kerala State is dealt with.

Grammitis medialis (Bak.) Sledge affinis, tamer differt praesertim fronde, facie dorsali, hirsuto quam glabro; paleis rhizomatis peltatis quam basifixis; et sporangiis unisetosis.

Holotypus: Ponmudi Hills Ravi 5711 A (CAL); Isotypus Ravi 5711 B-E (MH) et Isotypus 5711 F (RH).

Grammitis pilifera sp. nov. is allied to *G. medialis* (Bak.) Sledge, but differs mainly in the frond being hirsute on the dorsal side instead of glabrous; scales on the rhizome peltate instead of basifixed and sporangia unisetose.

Ravi 5711 A collected from Ponmudi Hills, Trivandrum District, Kerala State, on 13th November, 1975 at 750 m. has been designated as Holotype and deposited in the Central National Herbarium, Calcutta (CAL), Ravi 5711 B-E (Isotypes) are deposited in the Regional Herbarium, Coimbatore (MH) and

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